

IN THE CLAIMS:

- 1 1. (ORIGINAL) A method for increasing a number of persistent consistency point
2 images (PCPIs) maintained for a volume of a storage system, the method comprising the
3 steps of:
4 providing a file system information (fsinfo) block associated with an active file
5 system executing on the storage system;
6 providing one or more PCPI fsinfo blocks, each PCPI fsinfo block associated with
7 a PCPI; and
8 providing a volume information (volinfo) block at a predetermined location on
9 disk of the storage system, the volinfo block comprising a plurality of pointers configured
10 to reference the fsinfo and PCPI fsinfo blocks.
- 1 2. (ORIGINAL) The method of claim 1 wherein the pointers comprise volume
2 block numbers.
- 1 3. (CURRENTLY AMENDED) The method of claim 1 further comprising the steps of:
2 organizing the pointers as a table having a plurality of entries, each entry storing a
3 pointer; and
4 indexing the entries of the table by a PCPI identifier (ID).
- 1 4. (ORIGINAL) The method of claim 3 further comprising the step of associating
2 the active file system with a predefined PCPI ID.
- 1 5. (ORIGINAL) The method of claim 1 further comprising the steps of:
2 organizing the pointers as an array indexed by PCPI identifier (ID); and
3 associating the active file system with a predefined PCPI ID.
4

1 6. (ORIGINAL) The method of claim 5 wherein the predefined PCPI ID is zero.

1 7. (ORIGINAL) The method of claim 1 wherein the fsinfo block comprises a
2 pointer configured to reference an inode file associated with the active file system.

1 8. (ORIGINAL) The method of claim 1 wherein each PCPI fsinfo block comprises
2 a pointer configured to reference an inode file associated with a PCPI.

1 9. (ORIGINAL) The method of claim 1 wherein the predetermined location com-
2 prises a first and second volume block number.

1 10. (ORIGINAL) The method of claim 1 wherein the volinfo block further comprises
2 fields for PCPIs that do not have associated PCPI fsinfo blocks referenced by the volinfo
3 block.

1 11. (ORIGINAL) A system adapted to maintain an increased number of persistent
2 consistency point images (PCPI) for a volume of a storage system, the system compris-
3 ing:
4 at least one storage device adapted to store a volume information (volinfo) block
5 at a predefined location, the storage device further adapted to store a plurality of file sys-
6 tem information (fsinfo) blocks referenced by the volinfo block.

1 12. (ORIGINAL) The system of claim 11 wherein the storage device is a disk.

1 13. (ORIGINAL) The system of claim 11 wherein the predefined location comprises
2 a first and second volume block number.

1 14. (ORIGINAL) The system of claim 11 wherein the fsinfo blocks comprise a first
2 fsinfo block associated with an active file system and having a pointer configured to ref-
3 erence an inode file associated with the active file system.

1 15. (ORIGINAL) The system of claim 11 wherein the volinfo block comprises an
2 array of pointers configured to reference the fsinfo blocks.

1 16. (ORIGINAL) The system of claim 15 wherein the array of pointers is indexed by
2 a PCPI identifier (ID) and wherein an active file system is associated with a predefined
3 PCPI ID.

1 17. (ORIGINAL) The storage system of claim 15 wherein each pointer comprises a
2 volume block number.

1 18. (ORIGINAL) Apparatus for increasing a number of persistent consistency point
2 images (PCPIs) maintained for a volume of a storage system, the apparatus comprising:
3 means for providing a file system information (fsinfo) block associated with an
4 active file system executing on the storage system;
5 means for providing one or more PCPI fsinfo blocks, each PCPI fsinfo block as-
6 sociated with a PCPI; and
7 means for providing a volume information (volinfo) block at a predetermined lo-
8 cation on disk of the storage system, the volinfo block comprising a plurality of pointers
9 configured to reference the fsinfo and PCPI fsinfo blocks.

1 19. (ORIGINAL) A computer readable medium, including program instructions exe-
2 cuting on a storage system, for increasing a number of persistent consistency point im-
3 ages (PCPIs) maintained for a volume of the storage system, the computer readable me-
4 dium including program instructions for:

5 providing a file system information (fsinfo) block associated with an active file
6 system executing on the storage system;
7 providing one or more PCPI fsinfo blocks, each PCPI fsinfo block associated with
8 a PCPI; and
9 providing a volume information (volinfo) block at a predetermined location on
10 disk of the storage system, the volinfo block comprising a plurality of pointers configured
11 to reference the fsinfo and PCPI fsinfo blocks

1 20. (ORIGINAL) The computer readable medium of claim 19 further comprising
2 program instructions for:
3 organizing the pointers as an array indexed by PCPI identifier (ID); and
4 associating an active file system with a predefined PCPI ID.